

## REMARKS

Claims 1-37 are pending in the application and stand rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,778,177 to Azar. Applicant respectfully traverses the claim rejections as being clearly unsupported by the teachings of Azar.

In the response to arguments on pages 2-3 Examiner essentially acknowledges that Azar does not specifically disclose certain claim elements but that such elements are “inherent”. In particular, Examiner essentially contends that Azar inherently discloses “determining the position or orientation of a component part” because Azar “scans images or component in order to manipulate their position or orientation via a monitor and computer” (see page 3 of the Office Action). This argument is irrelevant to the claimed inventions and essentially misses the point.

Indeed, it is respectfully submitted Examiner’s claims of “inherency” are erroneous because the teachings of Azar and the claimed invention are so fundamentally different that one of ordinary skill in the art would not recognize Azar as even remotely teaching or suggesting the claimed invention, either expressly or inherently. Azar is simply directed to a system that enables scanning of an object or a surface to obtain information that can be used for generating and displaying a computer generated image (e.g., 3D image) of the object or surface (see, e.g., Col. 1, lines 26-43). In stark contrast, the claimed inventions are generally directed to systems and methods for simultaneous construction of a corresponding CAD model and physical model.

Fundamentally, Examiner has failed to demonstrate where and how Azar even remotely discloses or suggests a *tracking system that generates tracker data associated with a given component part, which is processed to determine the position and orientation of the component part with respect to the physical model as the component part is placed in a desired position in*

*the physical model*, as essentially claimed in claims 1, 15 and 27. Further, with respect to claims 15 and 27, Azar clearly does not disclose, expressly or inherently, methods for simultaneously constructing a corresponding physical model and CAD model by, e.g., *tracking coordinates of the relevant points of the CAD representation of the component physical part in relation to coordinates of the CAD model as the physical component part is placed in a desired position in the physical model*. In the claimed inventions, the CAD representation of each component physical part is added to the CAD model such that the CAD model comprises an ensemble of individual CAD representations of component physical parts.

Again, it is to be stressed that on a fundamental level, there is nothing in Azar that even remotely teaches, either expressly or inherently, the construction of a physical model. As noted above, Azar discloses scanning an object or a surface to obtain information that can be used for generating and displaying a computer generated image (e.g., 3D image) of the object or surface. However, because Azar is absolutely silent regarding building a physical model, there is simply no need for the Azar system to use a tracking system to determine the position and orientation of the component part with respect to the physical model as the component part is placed in a desired position in the physical model, as essentially claimed. The Azar system scans the object to determine the geometry of the object to render a 3D image, but the Azar system does not track spatial coordinates of the object as it is placed in a physical model because there is no physical model. Moreover, 3D manipulation of the rendered (and displayed) object in the Azar system does not require tracking the coordinates of the physical object as it is moved. Indeed, in the Azar system, there is no relation between the orientation of the 3D object and the corresponding physical object.

Accordingly, claims 1, 15 and 27 are clearly patentably distinct and patentable over Azar. Further, all claims that depend from claims 1, 15 and 27 are patentably distinct and patentable over Azar at least by virtue of their dependence from respective base claims 1, 15 and 27 (although such claims are indeed patentable in their own right). Therefore, the withdrawal of all the rejections under 35 U.S.C. § 102(b) is requested.

**Duty of Disclosure**

Applicant does not understand Examiner's request "provide the article in question". In the previous response, Applicant merely informed Examiner that Applicant's duty of disclosure under 37 C.F.R. § 1.56(a) was not "to provide all prior art at the time of the application submission" (as contended by Examiner), but rather to submit information that is "material" to the patentability of an existing claim.

It appears that the article or articles in question have already been found, cited and considered by the Examiner, as indicated in the "Notice of References Cited", PTO-892, provided by Examiner in the previous Office Action (Paper No. 4).

Respectfully submitted,



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